3M[™] UHF Headlamp Mount Tag, Non-Transferrable

Ultra High Frequency 865 – 928 MHz Global Passive Transponder

Overview

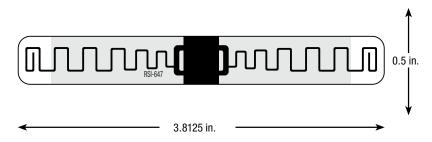
The 3M[™] Non-Transferrable Headlamp Mount Tag is a high performance radio frequency (RF) transponder designed to be used in conjunction with 3M's reader systems for automatic vehicle identification applications.

Developed for use directly on a motorcycle or vehicle headlamp, each transponder is capable of read/write functionality, contains a unique identification code, and is powered by utilizing energy from the reader, eliminating the requirement for a battery. The Headlamp transponder has a compact form factor and offers unique components and construction providing removal security.

The tag and reader solution is ideally suited for a number of global transportation applications including Electronic Vehicle Registration (EVR), vehicle emissions testing, proof of insurance compliance, electronic tolling and Parking & Access Control (PACS). By eliminating the manual, visual-based inspection associated with current systems the 3M solution enables system operators to securely identify vehicles with appropriate authorizations from a distance, while the vehicle is in motion.

Security & Authentication

3M technologies offer multiple levels of security and authentication options. These options provide both "break on remove" and physical authentication techniques for the transponder. In addition, 3M provides "RF" security features that verify the authenticity of a transponder during communications with the reader and provide security of sensitive information that may be stored on the tag.



3M[™] Headlamp Mount Tag





3M[™] UHF Headlamp Mount Tag 865–928 MHz Global, Passive Transponders

Performance Characteristics			
Operating Frequency:	869.4 - 869.56 MHz Europ	902 - 928 MHz Americas, 4 W EIRP 869.4 - 869.56 MHz Europe, 0.5 W ERP 865.6 - 867.6 MHz Europe, 2 W ERP	
Supported Protocol:	ISO 18000-6C	ISO 18000-6C	
Data Transfer Rate:	Up to 640 kbps	Up to 640 kbps	
Physical Characteristics			
Dimensions (LxW):		Label - 96.8375 x 12.7 mm (3.8125 x 0.5 in.) Inlay - 92.9 x 8.0 mm (3.66 x 0.315 in.)	
Weight:	1.2 g (0.04 oz)	1.2 g (0.04 oz)	
Environment			
ESD Voltage Immunity:	+/- 3kV	+/- 3kV	
Operating Temperature:	-40°C to +85°C (-40°F to 1	-40°C to +85°C (-40°F to 185°F)	
Storage Temperature:	-40°C to +100°C (-40°F to	-40°C to +100°C (-40°F to 212°F)	
Relative Humidity: Precipitation:	Up to 95% RH Rain, blowing rain, freezing	Up to 95% RH Rain, blowing rain, freezing rain	
Tag Memory & Security			
Tag Part Numbers:	ID-HMT-NT-L1S	ID-HMT-NT-L3S	
On-Chip Memory:	752 bits	800 bits	
Tag Identifier:	64 bits	64 bits	
Access password:	32 bits	32 bits	
Kill password:	32 bits	32 bits	
EEPROM data retention:	10 years	10 years	
EEPROM write endurance:	100,000 cycles	100,000 cycles	
Unique TID:	Yes	Yes	
Password Authentication:	Yes	Yes	
Read Lockable Memory:	No	Yes	

Warranty and Limited Remedy: Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. User is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application. Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that the 3M product will be free from substantial defects in material and workmanship under normal use and service for one (1) year from the original date of purchase. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, repair or replacement of the 3M product.

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